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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,678	07/23/2003	Hikaru Sugita	5988-054-27	6692

7590 05/31/2005

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EXAMINER
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LEE, RIP A

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/624,678

Applicant(s)

SUGITA ET AL.

Examiner

Rip A. Lee

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on May 4, 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11 and 12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4, 6, 7, 9, 11 and 12 is/are allowed.
- 6) ☒ Claim(s) 5 and 8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 05-04-2005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

This office action follows an after final response of May 4, 2005. Claims 1-9, 11, and 12 are pending. The indicated allowability of claims 5 and 8 is withdrawn in view of the newly discovered references cited below.

#### *Claim Rejections - 35 USC § 102*

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 5 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamada *et al.* (WO 01/13179).

Yamada *et al.* teaches a copolymer of poly(mono(4-vinylbenzyl)malonate-*co-t*-butylacrylate) which is subsequently subjected to salt formation and decarboxylation to give the acylated polymer **30** (Scheme 8). Polymers of the invention are used to coat substrates whereby the water soluble form, *i.e.*, **29**, is converted into the non-water soluble form in the presence of photoacid generator (page 3, and 35). There is no requirement in the claims that **30** is necessarily soluble in the solvent, and since the composition coats the substrate, the subject matter of the instant claims is met by the prior art.

3. Claims 5 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimokawa *et al.* (JP 9-230596).

Shimokawa *et al.* teaches coatings obtained from a polymer comprised of the structural unit of formula [I], as shown in paragraph [1102]. In this case, integers *m* and *n* are 1-5, and R<sub>4</sub> is a C<sub>1</sub> to C<sub>5</sub> alkyl group. Specific examples include *p*-vinylbenzyl methyl ether and  $\alpha$ -methyl-*p*-vinylbenzyl methyl ether, *inter alia* (paragraph [0020]). The abstract indicates that the coating also includes an acid generating agent (C). This corresponds to formula (4) of the instant claims in which *n* is 0 and R<sup>4</sup> is alkyl.

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4. Claims 5 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimokawa *et al.* (JP 8-184966).

Shimokawa *et al.* discloses a coating composition containing polymer (A) containing a unit having the structure of formula 2 and a photoacid generator (B) (see abstract). A specific example is 4-hydroxybenzoic acid-4'-vinylbenzyl (paragraph [0008]). This corresponds to formula (4) of the instant claims in which  $n$  is 0 and  $R^4$  is phenyl in which one of the hydrogens is replaced with a hydroxyl group.

5. Claims 5 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Kizu *et al.* (JP 10-090885).

Kizu *et al.* discloses a coating containing a copolymer having the structural unit of formula (3), as shown in paragraph [0010]. This corresponds to formula (4) of the instant claims in which  $n$  is 0 and  $R^4$  is acyl. The composition also includes a photoacid generator (see abstract).

#### ***Allowable Subject Matter***

6. As indicated in previous office actions, claims 1-4, 6, 7, 9, 11, and 12 are allowed.

#### ***Response to Arguments***

7. The rejection of claims 5 and 8 under 35 U.S.C. 102(b) as being anticipated by Murata *et al.* (JP 6-161111) has been withdrawn. Applicant's note correctly that the prior art does not teach use of acyl groups.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).



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May 26, 2005